

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P588973

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588973
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-1STD-50-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

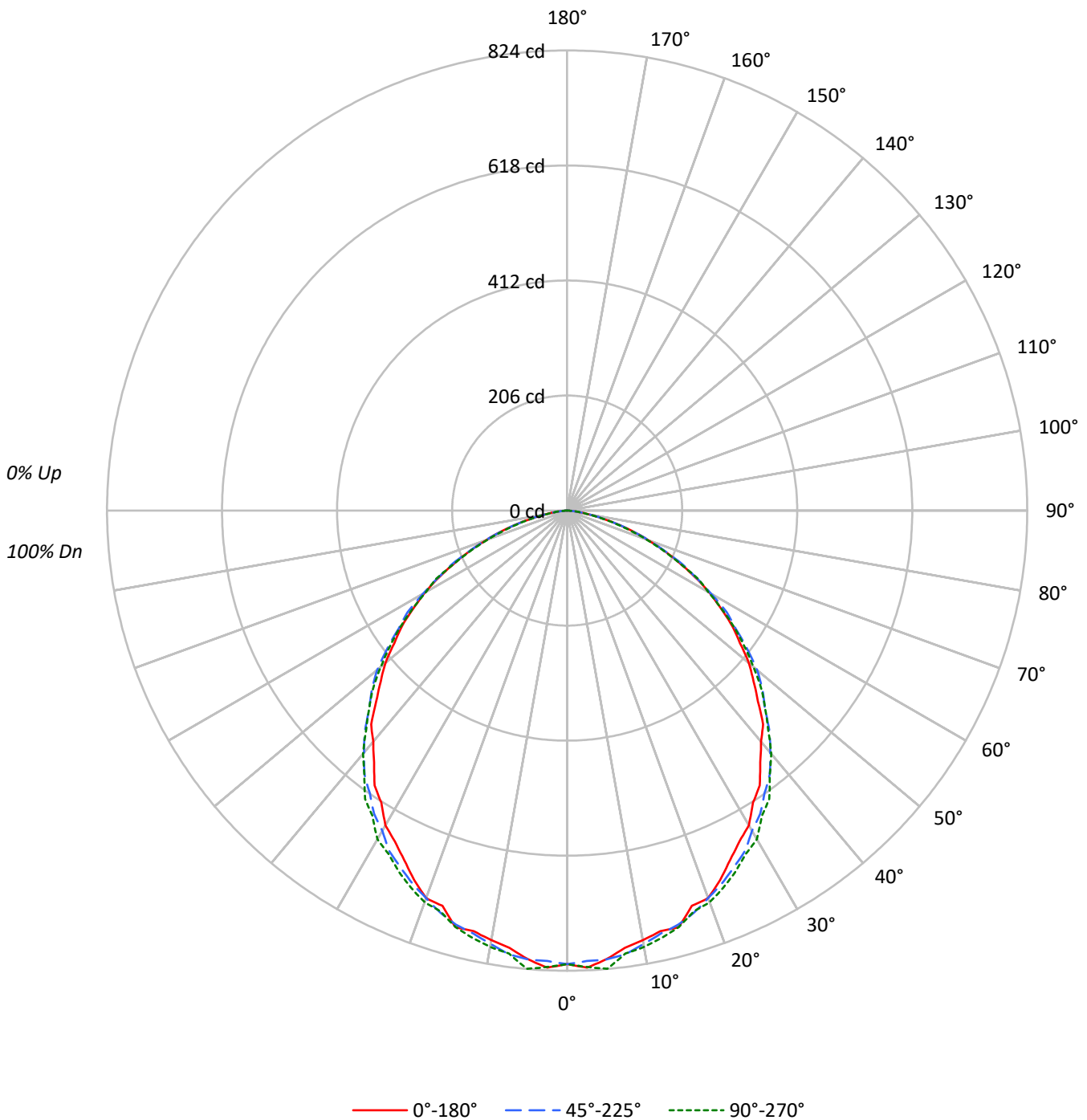
Lumens per Lamp: N/A
Luminaire Lumens: 2047.0 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2186	2186	2186
5°	2178	2179	2225
10°	2134	2153	2168
15°	2151	2139	2151
20°	2115	2115	2137
25°	2050	2094	2118
30°	2022	2057	2112
35°	1974	2026	2071
40°	1897	1989	1997
45°	1840	1905	1908
50°	1779	1860	1824
55°	1696	1728	1716
60°	1586	1601	1573
65°	1414	1450	1403
70°	1213	1217	1183
75°	961	959	921
80°	643	626	601
85°	349	346	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	3.7
10°-20°	216.5	10.6
20°-30°	324.4	15.8
30°-40°	384.5	18.8
40°-50°	385.2	18.8
50°-60°	327.0	16.0
60°-70°	220.4	10.8
70°-80°	96.9	4.7
80°-90°	15.7	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	617.3	30.2
0°-40°	1001.8	48.9
0°-60°	1714.0	83.7
0°-90°	2047.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2047.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	806	804	807	804	824	76
15°	772	763	768	772	772	215
25°	690	694	705	715	713	319
35°	601	603	617	631	630	373
45°	483	492	501	514	501	374
55°	361	359	368	366	366	321
65°	222	219	228	219	220	221
75°	92	90	92	86	89	99
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	812.2	812.2	812.2	812.2	812.2
2.5°	819.2	813.0	807.3	814.0	818.1
5°	806.4	804.5	806.7	804.3	823.7
7.5°	789.9	797.1	801.3	798.7	799.8
10°	781.1	778.5	787.9	794.4	793.4
12.5°	771.6	775.4	775.9	782.9	783.6
15°	772.1	763.2	767.9	771.9	772.2
17.5°	742.1	751.8	755.0	764.2	752.8
20°	738.5	731.5	738.5	747.8	746.3
22.5°	715.9	708.1	723.2	731.5	730.9
25°	690.3	694.1	705.4	714.7	713.2
27.5°	667.9	672.3	688.5	701.1	693.0
30°	650.6	648.4	662.0	673.4	679.6
32.5°	619.7	627.6	643.6	654.8	648.8
35°	600.9	602.7	616.6	630.9	630.5
37.5°	568.1	576.4	596.0	599.9	596.3
40°	540.1	548.4	566.1	570.4	568.6
42.5°	519.4	520.9	536.1	541.0	533.1
45°	483.4	492.5	500.6	513.5	501.4
47.5°	452.8	457.0	474.6	478.1	471.7
50°	425.0	426.5	444.2	439.9	435.7
52.5°	390.1	396.3	406.3	405.4	400.5
55°	361.4	359.0	368.4	365.9	365.8
57.5°	326.9	331.1	338.8	334.8	328.4
60°	294.6	294.7	297.5	293.0	292.2
62.5°	258.6	259.9	260.5	254.9	264.0
65°	222.0	219.1	227.7	219.0	220.4
67.5°	188.3	189.8	189.0	183.5	185.6
70°	154.2	156.0	154.7	148.5	150.4
72.5°	122.9	120.6	122.1	114.3	117.9
75°	92.4	90.5	92.2	85.7	88.6
77.5°	62.9	64.4	63.3	59.9	61.9
80°	41.5	40.4	40.4	38.4	38.8
82.5°	24.2	23.1	22.8	22.1	23.1
85°	11.3	11.0	11.2	10.9	10.5
87.5°	4.1	4.2	4.2	4.0	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)